

Notice of Allowability

Application No.

10/021,074

Examiner

Abolfazl Tabatabai

Applicant(s)

TSUJI, MASAFUMI

Art Unit

2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to application filed on December 19, 2001.
2. ☒ The allowed claim(s) is/are 1-15.
3. ☒ The drawings filed on 19 December 2001 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 11/17/04
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Reasons for Allowance

1. The following is an Examiner's statement of reasons for allowance.

The prior art of record fails to teach or suggest, lane recognition system for vehicle comprising (a) calculate variations of the parameters by comparing the lane marker candidate points with corresponding points on the model lane marker derived from the parameters stored in the memory; correct the parameters according to the variation; output road-shape indicative information on the basis of the parameters in combination into other features and elements of claims 1 and 14; (b) variation calculating means for calculating variations of the parameters representative of the road shape and a position of the image pickup means relative to the road ahead of the vehicle by comparing the coordinate of the lane marker candidate point and a coordinate of a point of the road model in the coordinate system of the image; parameter updating means for updating the parameters stored in the storing means according to the variations of the parameters; and output signal selecting means for outputting a displacement of the vehicle relative to the road to a vehicle control apparatus; wherein the lane-marker candidate-point detection area setting means sets the lane-marker candidate-point detection areas so that a part of each lane-marker candidate-point detection area is overlapped with adjacent one of the lane-marker candidate-point detection areas in combination into other features and elements of claim 15.

2. **Claims 1-15 are allowed.**

3. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should

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preferably accompany the issue fee. Such submissions should be clearly labeled

"Comments on Statement of Reasons for Allowance."

Citation of Relevant Prior Art

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Arai (U S 6,813,370 B1) discloses lane marker recognizing apparatus.

Hermans (U S 6,807,287 B1) discloses road profile prediction.

Yasui et al (U S 6,493,458 B2) disclose local positioning apparatus, and method therefor.

Hanawa (U S 6,370,261 B1) discloses vehicle surroundings monitoring apparatus.

Kise (U S 5,650,944) discloses shutter speed control method, and system.

Contact Information

5. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to ABOLFAZL TABATABAI whose telephone number is (703) 306-5917.

The Examiner can normally be reached on Monday through Friday from 9:30 a.m. to 7:30 p.m. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, Mehta Bhavesh M, can be reached at (703) 308-5246. The fax phone number for organization where this application or proceeding is assigned is (703) 872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Abolfazl Tabatabai

Patent Examiner

Group Art Unit 2625

November 17, 2004


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